

human α chain

thyrotropin alpha chain"

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Region 25..116
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Bond bond(83,111)
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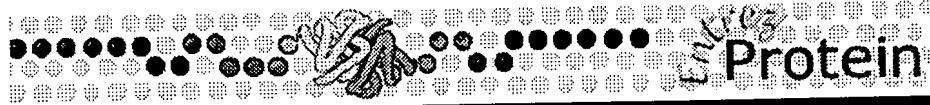
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☐ 1: TTHUAP . glycoprotein hormo...[gi:69160]

PubMed, Related Sequences

LOCUS TTHUAP 116 aa PRI 18-JUN-1999
 DEFINITION glycoprotein hormones alpha chain precursor - human.
 ACCESSION TTHUAP
 PID g69160
 VERSION TTHUAP GI:69160
 DBSOURCE pir: locus TTHUAP;
 summary: #length 116 #molecular-weight 13075 #checksum 1664;
 genetic: #gene GDB:CGA ##cross-references GDB:119774; OMIM:118850
 #map_position 6q14-6q21 #introns 30/1; 91/3;
 superfamily: glycoprotein hormones alpha chain;
 PIR dates: 13-Jul-1981 #sequence_revision 23-Oct-1981 #text_change
 18-Jun-1999.
 KEYWORDS glycoprotein; heterodimer; hormone; pituitary.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
 Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (residues 1 to 116)
 AUTHORS Sairam,M.R., Papkoff,H. and Li,C.H.
 TITLE Human pituitary interstitial cell stimulating hormone: primary
 structure of the subunit
 JOURNAL Biochem. Biophys. Res. Commun. 48 (3), 530-537 (1972)
 MEDLINE 72242988
 REFERENCE 2 (residues 1 to 116)
 AUTHORS Bellisario,R., Carlsen,R.B. and Bahl,O.P.
 TITLE Human chorionic gonadotropin. Linear amino acid sequence of the
 alpha subunit
 JOURNAL J. Biol. Chem. 248 (19), 6796-6809 (1973)
 MEDLINE 74011266
 REFERENCE 3 (residues 1 to 116)
 AUTHORS Shome,B. and Parlow,A.F.
 TITLE Human follicle stimulating hormone (hFSH): first proposal for the
 amino acid sequence of the alpha-subunit (hFSHa) and first
 demonstration of its identity with the alpha-subunit of human
 luteinizing hormone (hLHa)
 JOURNAL J. Clin. Endocrinol. Metab. 39 (1), 199-202 (1974)
 MEDLINE 74262937
 REMARK annotation
 REFERENCE 4 (residues 1 to 116)
 AUTHORS Morgan,F.J., Birken,S. and Canfield,R.E.
 TITLE The amino acid sequence of human chorionic gonadotropin. The alpha
 subunit and beta subunit
 JOURNAL J. Biol. Chem. 250 (13), 5247-5258 (1975)
 MEDLINE 75211304
 REFERENCE 5 (residues 1 to 116)
 AUTHORS Rathnam,P. and Saxena,B.B.
 TITLE Primary amino acid sequence of follicle-stimulating hormone from
 human pituitary glands. I. alpha subunit
 JOURNAL J. Biol. Chem. 250 (17), 6735-6746 (1975)

MEDLINE 76005558
 REFERENCE 6 (residues 1 to 116)
 AUTHORS Sairam,M.R. and Li,C.H.
 TITLE Human pituitary thyrotropin. The primary structure of the alpha and beta subunits
 JOURNAL Can. J. Biochem. 55 (7), 755-760 (1977)
 MEDLINE 77243687
 REFERENCE 7 (residues 1 to 116)
 AUTHORS Keutmann,H.T., Williams,R.M., Bishop,W.H. and Ryan,R.J.
 TITLE Structure of human luteninizing hormone
 JOURNAL Fed. Proc. 37, 1828 (1978)
 REFERENCE 8 (residues 1 to 116)
 AUTHORS Fiddes,J.C. and Goodman,H.M.
 TITLE Isolation, cloning and sequence analysis of the cDNA for the alpha-subunit of human chorionic gonadotropin
 JOURNAL Nature 281 (5730), 351-356 (1979)
 MEDLINE 80011660
 REFERENCE 9 (residues 1 to 116)
 AUTHORS Fujiki,Y., Rathnam,P. and Saxena,B.B.
 TITLE Studies on the disulfide bonds in human pituitary follicle-stimulating hormone
 JOURNAL Biochim. Biophys. Acta 624 (2), 428-435 (1980)
 MEDLINE 81021713
 REMARK annotation; preliminary disulfide bonds
 REFERENCE 10 (residues 1 to 116)
 AUTHORS Birken,S., Fetherston,J., Canfield,R. and Boime,I.
 TITLE The amino acid sequences of the prepeptides contained in the alpha and beta subunits of human choriogonadotropin
 JOURNAL J. Biol. Chem. 256 (4), 1816-1823 (1981)
 MEDLINE 81117268
 REFERENCE 11 (residues 1 to 116)
 AUTHORS Fiddes,J.C. and Goodman,H.M.
 TITLE The gene encoding the common alpha subunit of the four human glycoprotein hormones
 JOURNAL J. Mol. Appl. Genet. 1 (1), 3-18 (1981)
 MEDLINE 82267643
 REFERENCE 12 (residues 1 to 116)
 AUTHORS Miyoshi,I., Kasai,N. and Hayashizaki,Y.
 TITLE Structure and regulation of human thyroid-stimulating hormone (TSH) gene
 JOURNAL Nippon Rinsho 52 (4), 940-947 (1994)
 MEDLINE 94254248
 REFERENCE 13 (residues 1 to 116)
 AUTHORS Lapthorn,A.J., Harris,D.C., Littlejohn,A., Lustbader,J.W., Canfield,R.E., Machin,K.J., Morgan,F.J. and Isaacs,N.W.
 TITLE Crystal structure of human chorionic gonadotropin
 JOURNAL Nature 369 (6480), 455-461 (1994)
 MEDLINE 94261179
 REMARK annotation; X-ray crystallography, 3.0 angstroms; correction of disulfide bonds
 REFERENCE 14 (residues 1 to 116)
 AUTHORS Shome,B. and Parlow,A.F.
 TITLE Direct Submission
 JOURNAL Submitted (??-APR-1975) to the Atlas
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 Protein 1..116
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HTSHB

ORIGIN

Signal

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GenPept



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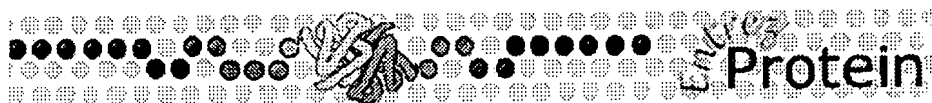
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☐ 1: P01222 . THYROTROPIN BETA C...[gi:136443]

PubMed, Related Sequences

LOCUS TSHB_HUMAN 138 aa PRI 30-MAY-2000
 DEFINITION THYROTROPIN BETA CHAIN PRECURSOR (THYROID-STIMULATING HORMONE) (TSH-B) (THYROTROPIN ALFA).
 ACCESSION P01222
 PID g136443
 VERSION P01222 GI:136443
 DBSOURCE swissprot: locus TSHB_HUMAN, accession P01222; class: standard. created: Jul 21, 1986. sequence updated: Jan 1, 1988. annotation updated: May 30, 2000.
 xrefs: gi: 37469, gi: 37470, gi: 37473, gi: 755761, gi: 339996, gi: 339998, gi: 341005, gi: 575501, gi: 341004, gi: 340000, gi: 340002, gi: 69169, gi: 88858
 xrefs (non-sequence databases): HSSP P01233, MIM 188540, MIM 275100, PFAM PF00007, PROSITE PS00261, PROSITE PS00689
 KEYWORDS Hormone; Glycoprotein; Pharmaceutical; Signal.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (residues 1 to 138)
 AUTHORS Hayashizaki,Y., Miyai,K., Kato,K. and Matsubara,K.
 TITLE Molecular cloning of the human thyrotropin-beta subunit gene
 JOURNAL FEBS Lett. 188 (2), 394-400 (1985)
 MEDLINE 85285609
 REMARK SEQUENCE FROM N.A.
 REFERENCE 2 (residues 1 to 138)
 AUTHORS Wondisford,F.E., Radovick,S., Moates,J.M., Usala,S.J. and Weintraub,B.D.
 TITLE Isolation and characterization of the human thyrotropin beta-subunit gene. Differences in gene structure and promoter function from murine species
 JOURNAL J. Biol. Chem. 263 (25), 12538-12542 (1988)
 MEDLINE 88315051
 REMARK SEQUENCE FROM N.A.
 REFERENCE 3 (residues 1 to 138)
 AUTHORS Guidon,P.T. Jr., Whitfield,G.K., Porti,D. and Kourides,I.A.
 TITLE The human thyrotropin beta-subunit gene differs in 5' structure from murine TSH-beta genes
 JOURNAL DNA 7 (10), 691-699 (1988)
 MEDLINE 89170116
 REMARK SEQUENCE FROM N.A.
 REFERENCE 4 (residues 1 to 138)
 AUTHORS Tatsumi,K., Hayashizaki,Y., Hiraoka,Y., Miyai,K. and Matsubara,K.
 TITLE The structure of the human thyrotropin beta-subunit gene
 JOURNAL Gene 73 (2), 489-497 (1988)
 MEDLINE 89211986
 REMARK SEQUENCE FROM N.A.

REFERENCE 5 (residues 1 to 138)
 AUTHORS Sairam,M.R. and Li,C.H.
 TITLE Human pituitary thyrotropin. The primary structure of the alpha and beta subunits
 JOURNAL Can. J. Biochem. 55 (7), 755-760 (1977)
 MEDLINE 77243687
 REMARK SEQUENCE OF 21-132.
 COMMENT

 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. The original entry is available from <http://www.expasy.ch/sprot> and <http://www.ebi.ac.uk/sprot>

[FUNCTION] INDISPENSABLE FOR THE CONTROL OF THYROID STRUCTURE AND METABOLISM.

[SUBUNIT] HETERODIMER OF A COMMON ALPHA CHAIN AND A UNIQUE BETA CHAIN WHICH CONFERS BIOLOGICAL SPECIFICITY TO THYROTROPIN, LUTROPIN, FOLLITROPIN AND GONADOTROPIN.

PHARMACEUTICAL: AVAILABLE UNDER THE NAME THYROGEN (GENZYME).

[SIMILARITY] BELONGS TO THE GLYCOPROTEIN HORMONES BETA CHAIN FAMILY.

[DATABASE] NAME=Thyrogen; NOTE=Clinical information on Thyrogen; WWW='http://www.genzyme.com/thyrogen/pi.htm'.

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 Protein 1..138
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 21..132
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